REMARKS

Claims 1-50 and 52-118 are pending. Claims 1, 27, 46, 69, 89, 106, 117, and 118 are independent claims. The indication of allowable subject matter in claims 1-26, 46-50, and 52-88 is appreciated. With this amendment, claims 52 and 93 are amended to correct informalities thereof. Objections to claims 52 and 93 are respectfully requested to be withdrawal.

Rejection of claim 27

Independent claim 27 is rejected under 103(b) over True (US 2001/0040675) in view of Wolf (*Silicon Processing for the VLSI Era, Vol. 1, Lattice Press (1986)).* This rejection is traversed.

Claim 27 is a method claim that expressly recites, among other features, a step of oxidizing an amount of a material of the deflectable element equivalent to at least 20 percent of the volume of the deflectable element by exposing the deflectable element in an oxygen-containing gas other than air. It is respectfully submitted that the above feature is nowhere disclosed or suggested by True and Wolf, either individually or in combination.

As indicated by the Examiner in the Office Action, True does not expressly disclose the above feature. Wolf is directed to silicon processing in VLSI, and does not disclose or suggest the features set forth in claim 27.

In rejecting claim 27, the Examiner posited the obviousness of claim 27 by combining True and Wolf. The undersigned respectfully disagrees. It is respectfully submitted that, there is no motivation to combine True and Wolf to constitute a *prima facie* case of obviousness for rejecting claim 27. Even forced into a combination, Wolf does not remedy the deficiencies of True; and the combination of True and Wolf does not teach or suggest all features of claim 27.

More particularly, even though True discloses that the hinge material can be silicon oxide; and Wolf discloses oxidation of silicon, the combination of True and Wolf does not teach or suggest a step of oxidizing an amount of a material of the deflectable element as recited in claim 27. Specifically, if True's hinge material is determined to be silicon oxide, there would be no motivation to oxidize True's hinge material as set forth in claim 27. The Examiner's position would appear to be a case of hindsight-motivated reconstruction of applicant's claimed invention using applicant's specification as motivation – rather than relying on a teaching or suggestion in the prior art.

There is nothing in True or Wolf that would suggest that a step of oxidation of the deflectable element is needed or desirable, much less oxidizing an amount of a material of a deflectable element equivalent to at least 20 percent of the volume of the deflectable element by exposing the deflectable element in an oxygen-containing gas other than air (claim 27 inherently requires that the structure being oxidized is movable/deflectable at the time the 20% oxidation takes place and does not encompass depositing an oxide material prior to release).

The Examiner took Official Notice, for the combination of True and Wolf, in rejecting claim 27 for the feature that the amount of oxidation be 20% or more of the volume. The Examiner is respectfully requested to provide evidence for this part of the rejection (20% or more), as well as for oxidizing an element (in a gas other than air) after it has been formed and is already deflectable.

Because True and Wolf, either individually or in combination, do not teach or suggest all features of claim 27, claim 27, as well as claims 28-45 depending from claim 27, is patentable over True and Wolf. Reconsideration and withdrawal of the rejection are respectfully requested.

Rejection of claim 89

Independent claim 89 was rejected over True and Wolf. The rejection is traversed.

Specifically, claim 89 as amended expressly recites, among other features, a step of oxidizing and patterning the hinge layer to form an oxidized hinge; and a step of removing the sacrificial layer after the step of oxidizing. As a comparison, True disclosed that the deformable hinge can be polysilicon (paragraph **[0020]**), and the deformable hinge can be exposed to the etchant, which can be dry oxygen plasma, during the fabrication. Even though Wolf evidenced that the polysilicon can be oxidized during plasma etching, the combination of True and Wolf does not teach or suggest oxidizing the hinge prior to the plasma etch. Because True and Wolf fail in disclosing or suggesting all features of claim 89 is patentable over True and Wolf. Reconsideration and withdrawal of the rejection are respectfully requested.

Rejection of claim 106

Claim 106 was rejected under 103 (a) over True and Wolf. This rejection is respectfully traversed.

Claim 106 expressly recites, among other features, the steps of removing the sacrificial layer; and cleaning and oxidizing the micromirror device, further comprising: providing a gas that is an oxygen-containing gas other than air, the oxygen-containing gas cleaning the micromirror and oxidizing an amount of the material of the hinge equivalent to at least 25% in volume of the hinge. The combination of these steps are nowhere disclosed or suggested by the combination of True and Wolf.

As discussed above for claim 1, True discloses that the deformable hinge can be polysilicon, and the deformable hinge can be exposed to the etchant, which can be dry oxygen plasma, during the fabrication. Even in combination with Wolf, the combination at most suggests the possible oxidization of polysilicon materials during the etching process. Instead, True does not teach or suggest the step of cleaning and oxidizing the micromirror device after removing the sacrificial material, comprising: providing a gas that is an oxygen-containing gas other than air, the oxygen-containing gas cleaning the micromirror and oxidizing an amount of the material of the hinge equivalent to at least 25% in volume of the hinge.

Because True and Wolf fail in teaching or suggesting all features of claim 106, claim 106, as well as claims 107-116, is patentable over True and Wolf. Reconsideration and withdrawal of the rejection are respectfully requested.

Rejection of claim 117

Claim 117 was rejected under 103(a) over True and Wolf. It is respectfully submitted that claim 117 is patentable over True and Wolf for at least the same reason set forth above with respect to claim 27.

Rejection of claim 118

Claim 118 was rejected under 103(a) over True and Wolf. This rejection is traversed because, it is respectfully submitted, True and Wolf, either individually or in combination, do not teach or suggest all features of claim 118.

For example, claim 118 expressly recites, among other features, a step of oxidizing the deformable element in an oxygen-containing gas other than air while the deformable element is in the deflected state (emphasis added). This feature is nowhere disclosed or suggested by True

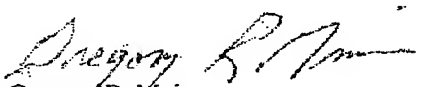
or Wolf or a combination there of.

For another example, claim 118 recites, among other features, a step of oxidizing the element such that the electrical resistance of the element after oxidization is two times or more of the electrical resistance before oxidization. This feature is nowhere disclosed or suggested by True or Wolf or a combination there of.

Because True and Wolf fail in disclose or suggest all features of claim 118, claim 118 is patentable over True and Wolf. Reconsideration and withdrawal of the rejection are respectfully requested.

It is believed that this application is in condition for allowance. Favorable consideration and prompt allowance are respectfully requested. In the event any fees are required in connection with this paper, please charge our Deposit Account No. 20-0668.

Respectfully submitted,



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